

**TOP SECRET**

Declassification Review by NGA/DoD

OUT58399

**T O P S E C R E T 030155Z**

1966 MAY 3 02 15Z

25X1

SUBJECT: SUPPORT REQUESTED BY [REDACTED]

25X1

THE PURPOSE OF THIS CABLE IS TO REQUEST ADDITIONAL SUPPORT AND RECLARIFY EXISTING SUPPORT REQUESTS.

1. REFERENCE [REDACTED] REPLIES TO SUPPORT PREVIOUSLY REQUESTED. THIS REPLY REFERS TO:

25X1

3 MAY 1966

- A. VARIANCE/COVARIANCE OF POSITION ERRORS.
- B. SYSTEM TIME/VEHICLE TIME CORRELATION.
- C. TIME VARIANCE FOR TIME CORRELATION.
- D. VARIANCE OF ATTITUDE ERRORS.
- E. RELATIONSHIP BETWEEN IMAGE AND TARGET COORDINATES.

THE ABOVE INFORMATION REQUESTS HAVE BEEN SATISFIED PARTIALLY. THE EXTENT DEPENDING ON THE CAMERA SYSTEM REFERRED TOO.

3,4,5

2. VARIANCE/COVARIANCE OF POSITION ERRORS

WE HAVE RECEIVED THE BEST AVAILABLE ESTIMATES OF THE VARIANCE/COVARIANCE FOR BOTH POSITION AND VELOCITY COMPONENTS, FOR BOTH THE CORONA [REDACTED] SYSTEMS. THERE IS, HOWEVER, CONFLICTING OPTION AS TO WHETHER THESE ARE 1 SIGMA OR 3 SIGMA VALUES. CLOUD THIS BE CLARIFIED?

25X1

EVENTUALLY, AS EXPERIENCE AND REFINEMENTS ARE EFFECTED, IT IS PROBABLE THAT THESE VALUES WILL BECOME MISSION OUTPUTS RATHER THAN

**TOP SECRET**

25X1

CAMERA SYSTEM CONSTANTS TO BE PERIODICALLY UP DATED. IS THIS INTERPRETATION A CORRECT ONE?

3. SYSTEM TIME/VEHICLE TIME CORRELATION AND TIME VARIANCE FOR TIME CORRELATION.

WE HAVE RECENTLY RECEIVED FROM [REDACTED]

25X1

[REDACTED] PROGRAM DOCUMENTATION ENTITLED "910 QUADRATIC CURVE FIT PROGRAM FOR TIME CORRELATION".

25X1

THIS DOCUMENTATION STATES PROGRAM OUTPUTS OF:

A. COEFFICIENTS OF THE QUADRATIC EQUATION

B. THE AVERAGE DIFFERENCE BETWEEN THE COMPUTED AND OBSERVED VALUES.

C. THE STANDARD DEVIATION OF THE DIFFERENCES (SD).

SEVERAL QUESTIONS HAVE RESULTED.

1) WHEN CAN WE EXPECT TO RECEIVE THIS INFORMATION ON A REGULAR BASIS?

2) ASSUME THAT THIS INFORMATION WILL BE INCLUDED AS PART OF THE MCD.

3) [REDACTED] HAS REQUESTED THAT THE STANDARD DEVIATION OF THE COMPUTED COEFFICIENTS BE INCLUDED AS OUTPUT, IN ADDITION TO THE STANDARD DEVIATION OF THE DIFFERENCES.

25X1

4) [REDACTED] ALSO REQUESTS THAT THE VARIANCE OF TIME HACK PLACEMENT BE SUPPLIED FOR THE [REDACTED] SYSTEM. THIS INFORMATION MAY BE IN THE FORM OF A SPECIFIED DESIGN TOLERANCE, IF ACTUAL OBSERVATIONS ARE NOT AVAILABLE.

25X1

25X1

#### 4. VARIANCE OF ATTITUDE ERRORS

MEMORANDUM [ ] STATES THAT THIS INFORMATION WILL BE  
SUPPLIED ONLY FOR THE [ ] VEHICLES. THIS INFORMATION IS ALSO  
NEEDED FOR THE CORONA VEHICLES. [ ] HAS BEEN INFORMED  
BY [ ] OF THIS NEED.

25X1  
25X1  
25X1  
25X1

THE INFORMATION [ ] IS REQUESTING FOR THE [ ] SYSTEM  
IN ADDITION TO THE ATTITUDE RATES ALREADY RECEIVED ARE THE DEADBANDS  
ON VEHICLE PITCH, ROLL AND YAW AND THE VARIANCE ON PROGRAMMED MIRROR  
PITCH AND MIRROR CRAB.

25X1

#### 5. RELATIONSHIP BETWEEN IMAGE AND TARGET COORDINATES

THIS INFORMATION HAS BEEN RECEIVED AND IS ACCEPTABLE.

T O P S E C R E T

/END OF MESSAGE/